

HBsAg in sex workers follows those of the general population where rates of HBsAg carriers have dropped from about 3–6% in the early 1980s<sup>3,4</sup> to 1–2% over the past years.<sup>2</sup> It seems that partial vaccination of the susceptible population along with safe sex practices over the past years have decreased exposure of sex workers to the virus in our region.

For reasons that are not entirely clear, most epidemiological research and control and prevention efforts of sexually transmitted HBV has focused mainly on homosexual men. However, in the present study it was shown that exposure of transsexual sex workers to HBV is not significantly more frequent when compared with female sex workers. Thus, the estimated as highly promiscuous sexual activity of transsexuals seems to not substantially increase their viral exposure. It is possible, that increase in the use of condoms due to an awareness of other STDs such as AIDS has lowered the incidence of hepatitis B in these individuals.

Additionally, infection rate of sex workers, was not found dependent on their age and years of legalised sex work. It is likely, that after their official registration, continuous health education encourage them to take safety precautions and therefore minimising exposure to the virus. In contrast, the practice of illegal sex work, which is usually for a time before registering as a sex worker, seems to contribute more in their HBV infection. It seems that screening sex workers for the presence of markers and vaccinating those who are negative would further restrain their exposure to the virus.

A TSAKRIS  
Venereal Diseases Clinic, Ministry of Health,  
Athens, Greece  
K P KYRIAKIS  
S CHRYSSOU  
The West Attica General Hospital,  
Athens, Greece  
G PAPOUTSAKIS  
Ministry of Health,  
Athens, Greece

Correspondence to: Dr A Tsakris, Department of Microbiology, Medical School, Aristotelian University of Thessaloniki, 54006 Greece.

- 1 Morton RS. Control of sexually transmitted diseases today and tomorrow. *Genitourin Med* 1987;63:202–9.
- 2 Foudoulaki L, Papoulia E, Drossou M, Maropoulou A, Kyriakis KP, Sofroniadou K. Prevalence of HBsAg, HCV and HIV among Green voluntary blood donor population groups. 5th Regional (4th European) Congress of ISBT, Venezia (Italy), 2–5 July 1995, Abstracts book p151.
- 3 Papaevangelou G, Trichopoulos D, Kremastinou T, Papoutsakis G. Prevalence of hepatitis B antigen and antibodies in prostitutes. *BMJ* 1974;ii:256–8.
- 4 Kaklamani E, Kyriakidou A, Trichopoulos D, Papoutsakis G, Koumandaki I, Karalis D. Hepatitis B serology in Greek prostitutes: significance of the different serum markers. *J Hyg (Camb)* 1980;84:257–61.
- 5 Ramachandran S, Ngeow YF. The prevalence of sexually transmitted diseases among prostitutes in Malaysia. *Genitourin Med* 1990;66:334–6.
- 6 Tomlinson DR, Hillman RJ, Harris JRW, Taylor-Robinson D. Screening for sexually transmitted disease in London-based male prostitutes. *Genitourin Med* 1991;67:103–6.
- 7 Rosenblum L, Darrow W, Witte J, Cohen J, French J, Gill PS, et al. Sexual practices in the transmission of hepatitis B virus and prevalence of hepatitis delta virus infection in female prostitutes in the United States. *JAMA* 1992;267:2477–81.
- 8 Bratos MA, Eiros JM, Orduna A, Cuervo M, Ortiz de Lejarazu P, Almaraz A, et al. Influence of syphilis in hepatitis B transmission in a cohort of female prostitutes. *Sex Transm Dis* 1993;20:257–61.

### Genital *Chlamydia trachomatis* infections in primary care

Ross *et al*<sup>1</sup> have highlighted the significant proportion of genital *Chlamydia trachomatis* infections which are diagnosed in general practice, and that only a minority of cases (13%) in their district were referred to a genitourinary medicine (GUM) clinic. In the same issue of the *BMJ*, a postal survey<sup>2</sup> revealed that only 30% of general practitioners in England and Wales would refer a woman with a chlamydial infection to a GUM clinic for contact tracing, follow up, and screening for co-infection. It is a matter of concern that of those GPs who would not refer, only 30% would prescribe an appropriate antibiotic treatment.

We have reviewed all genital chlamydial infections (diagnosed by enzyme linked immunosorbant assay and confirmed with direct immunofluorescence) in specimens received from hospital and community clinic settings by the Public Health Laboratory Service in Sheffield during the first half of 1996. Of the total of 308 cases with confirmed positive tests, 158 presented for initial screening at the GUM clinic. Of those presenting to other services, 37 were detected in obstetrics/gynaecology attenders, 34 in patients attending family planning clinics, 73 in patients attending GP surgeries, and six attenders of other services. By cross referencing patient identifiers from positive samples with the GUM clinic register, we found that 64 (90%) of 71 patients attending gynaecology/family planning clinics (where routine referral to GUM is long established) attended the GUM clinic for management of their infection. This demonstrates that routine GUM involvement in the management of chlamydial infection is both acceptable and achievable in Sheffield.

Moreover, of those patients diagnosed in general practice, 42 (58%) also attended GUM clinics either before or after treatment for further management. Overall, GUM clinics contributed wholly or in part to the management of 268 (87%) of all 308 chlamydia positive patients diagnosed in the city during the study period.

Improved community control of genital chlamydial infections<sup>3</sup> necessitates not only that diagnostic facilities are widely available, but also that there is close collaboration between GUM clinics and other sexual health services to ensure that comprehensive management is provided for all diagnosed cases. In Sheffield, considerable effort has been made to successfully establish these links. In other locations where such collaboration is not routine, we strongly advocate that general practitioners and other services which screen for chlamydial infections are educated to utilise GUM facilities for partner notification procedures. This will also allow improved epidemiological surveillance of this common sexually transmitted disease within a service which is renowned for maintenance of patient confidentiality.

K E ROGSTAD  
D J KELLOCK  
MARK HORTON  
Dept of GUM,  
Royal Hallamshire Hospital,  
Glossop Road,  
Sheffield S10 2TF  
G KUDESIA  
PHLS,  
Northern General Hospital,  
Herries Road,  
Sheffield S5 7AU

- 1 Ross JDC, Sutherland S, Coia J. Genital *Chlamydia trachomatis* infections in primary

care. *BMJ* 1996;313:1192–3.

- 2 Mason D, Kerry S, Oakeshott P. Postal survey of management of cervical *Chlamydia trachomatis* infection in English and Welsh general practices. *BMJ* 1996;313:1193–4.
- 3 Johnson AM, Grun L, Haines A. Controlling genital chlamydial infection. *BMJ* 1996;313:1160–1.

Accepted for publication 12 February 1997

### Failure of trimethoprim in the treatment of donovanosis

Antibiotics for the treatment of donovanosis include tetracyclines, chloramphenicol, co-trimoxazole, and ceftriaxone.<sup>1,2</sup> Co-trimoxazole has been used with considerable success.<sup>3,4</sup> In India and South Africa the favoured regimen is two tablets of co-trimoxazole twice daily for at least 10 days,<sup>4,5</sup> and good compliance and results with this dosage have been reported.<sup>6</sup> However, to date at least four cases of failure of co-trimoxazole in the treatment of donovanosis have been reported.<sup>1,7</sup>

Doctors in the UK have been urged to use trimethoprim alone rather than co-trimoxazole when there is no clear advantage with the latter.<sup>8</sup> This reflects concern about the serious toxicity associated with sulphonamide use, particularly Stevens-Johnson syndrome, blood dyscrasias, and hepatotoxicity.<sup>8</sup> When first introduced, the combination of sulphonamides and trimethoprim was shown *in vitro* to be synergistic, but studies have shown trimethoprim to be just as effective as co-trimoxazole in the treatment of chest and urinary tract infections. The use of the combination has not reduced the incidence of resistance to trimethoprim.<sup>8</sup> With the exception of two reports, sulphonamides have not been found to be useful in the treatment of donovanosis, other than as a component of co-trimoxazole<sup>2</sup>; with this in mind, it seems prudent to prescribe trimethoprim instead. We are not aware of any trials of the use of trimethoprim in the treatment of donovanosis. Here we describe failure of trimethoprim in treatment of a case of donovanosis.

Our patient, a Jamaican man, presented with a penile ulcer of 8 weeks' duration (fig). There was no dysuria or urethral discharge. He had had unprotected vaginal intercourse 3 months previously in Jamaica. Initial diagnostic tests were negative for chlamydia, gonorrhoea, and treponemes. Repeated dark ground microscopy examinations on 3 subsequent days were negative for spirochaetes, and culture for *Haemophilus ducreyi* was also negative. Our patient was treated initially with trimethoprim, 200 mg twice daily. After 3 weeks there was no improvement in the lesion. After repeated microscopic and serological screens for treponemal infection were negative, a biopsy was performed, which



Lesion of donovanosis on penis.

Accepted for publication 12 February 1997

confirmed the diagnosis of donovanosis. A 6 week course of doxycycline 100 mg twice daily was commenced, and the patient made a full recovery.

In view of the increased transmissibility of HIV in association with ulcerating genital infections, an effective and acceptable oral agent is required for the treatment of donovanosis. Few well designed controlled trials have addressed this problem.<sup>2</sup> Effective treatment and prevention of ulcerating genital disease is important in the control of the spread of HIV. Clinicians investigating patients from tropical countries should be aware that trimethoprim and co-trimoxazole do not always eradicate donovanosis.

KARL BIRTHISTLE  
JAMES GREIG

Department of Medical Microbiology,  
St George's Hospital Medical School,  
London SW17 0RE

PHILIP HAY

Department of Genito-urinary Medicine,  
St George's Hospital Medical School,  
London SW17 0RE

- Merianos A, Gilles M, Chuah J. Ceftriaxone in the treatment of chronic donovanosis in central Australia. *Genitourin Med* 1994;70:84-9.
- Richens J. The diagnosis and treatment of donovanosis (granuloma inguinale). *Genitourin Med* 1991;67:441-52.
- Garg BR, Lal S, Sivami S. Efficacy of co-trimoxazole in donovanosis. *Br J Venereal Dis* 1978;54:348-9.
- Lal S, Garg BR. Further evidence of the efficacy of co-trimoxazole in granuloma inguinale. *Br J Venereal Dis* 1980;56:412-3.
- O'Farrell N. Clinico-epidemiological study of donovanosis in Durban, South Africa. *Genitourin Med* 1993;69:108-11.
- O'Farrell N. Global eradication of donovanosis: an opportunity for limiting the spread of HIV-1 infection. *Genitourin Med* 1995;71:27-31.
- Pradinaud R, Grossbans E, Basset A, Bertin C. Etudes de 24 cas de donovanose en Guyane Française. *Bull Soc Pathol Exot Filiales* 1981;74:30-6.
- Anonymous. Co-trimoxazole use restricted. *Drug Ther Bull* 1995;33:92-3.

Accepted for publication 12 February 1997

### Perforation of hard palate in lues maligna associated with HIV infection

Unusual oral and skin manifestations of infectious diseases may be observed in patients with HIV infection.<sup>1-3</sup> These are quite often a challenge to the clinician. Destructive bone diseases such as osteitis and osteomyelitis are well known complications of congenital and tertiary syphilis; they are rare complications of early acquired syphilis.<sup>4</sup> We report a case of perforation of hard palate in lues maligna associated with HIV infection.

A 30 year old promiscuous male presented with a solitary genital ulcer and recurrent erythematous nodules and ulcers over the

limbs (fig 1) and trunk for the past 5 months, associated with joint pains, swelling over the limbs, fever, headache, myalgia, and epistaxis. On further examination he had inguinal and epitrochlear lymphadenopathy. Oral examination revealed a mucosal patch and perforation over the hard palate (fig 2). Dark ground microscopy from the genital ulcer revealed several motile spirochaetes. VDRL was reactive in 1:128, TPHA and HIV (ELISA) were positive. Blood examination revealed normocytic normochromic anaemia with increased rouleaux formation, raised ESR (> 150 mm in the first hour). Liver function tests, antinuclear antibody (ANA), and double stranded DNA were within normal limits. The patient refused to undergo skin biopsy and lumbar puncture. In view of the clinical features, dark ground examination, and serological findings secondary syphilis (lues maligna) was considered. He was treated with procaine penicillin 24 units for 2 weeks. On follow up his skin lesions had healed.

The case is interesting because of early palatal perforation following lues maligna in this HIV patient. A review of the literature of the past 20 years revealed that of 1800 patients with early syphilis, less than 0.2% had evidence of periostitis, and there were no reports of destructive bone lesions.<sup>5</sup> A recent review of bone and joint disease in association with HIV infection does not report syphilis related bone disease.<sup>6</sup> Cases of HIV associated lues maligna with widespread, atypical ulcerations of the oral mucosa and skin have been reported.<sup>7-9</sup> We postulate that defective cell mediated immunity might have facilitated the rapid dissemination of spirochaetes invading bones and joints resulting in bone destruction. Numerous spirochaetes observed in bone biopsy specimen suggesting the aggressiveness of syphilis in a patient with concurrent HIV infection has been documented earlier.<sup>10</sup>

C BALACHANDRAN  
L SABITA  
G R KANTHRAJ  
Department of Skin & STD,  
Kasturba Medical College,  
Manipal-576 119,  
Karnataka, India

Correspondence to: Dr C Balachandran.

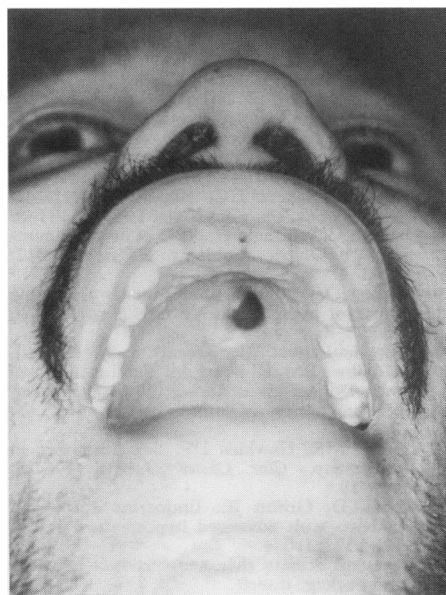


Figure 2 Perforation of hard palate.



Figure 1 Ulcers over the toes and few nodules over the dorsum of feet.

- Ficarra G, Shillito EJ. HIV-related infections of the oral cavity. *Crit Rev Oral Biol Med* 1992;3:207-31.
- Ficarra G. Oral lesions of iatrogenic and undefined etiology and neurologic disorders associated with HIV infection. *Oral Surg Oral Med Oral Pathol* 1992;73:201-11.
- Penneys NS, Hicks B. Unusual cutaneous lesions associated with acquired immunodeficiency syndrome. *J Am Acad Dermatol* 1985;13:845-52.
- Dismukes WE, Delgado DG, Mallernee SV, Myers TC. Destructive bone disease in early syphilis. *JAMA* 1976;236:2646-8.
- Mindel A, Tovey SJ, Timmins DJ, Williams P. Primary and secondary syphilis, 20 years experience. *Genitourin Med* 1989;65:1-3.
- Hughes RA, Rowe IF, Shanson D, Keat AC. Septic bone, joint and muscle lesions associated with human immunodeficiency virus infection. *Br J Rheumatol* 1992;31:381-8.
- Shulkin D, Tripoli L, Abell E. Lues maligna in a patient with human immunodeficiency virus infection. *Am J Med* 1988;85:425-7.
- Glover RA, Piquadio DJ, Kern S, Cockerell CJ. An unusual presentation of secondary syphilis in a patient with human immunodeficiency virus infection: a case report and review of the literature. *Arch Dermatol* 1992;128:530-4.
- Ficarra G, Zaragoza AM, Stendordi L, Parri F, Cockerell CJ. Early oral presentation of lues maligna in a patient with HIV infection. *Oral Surg Oral Med Oral Pathol* 1993;75:728-32.
- Kastner RJ, Malone JL, Decker CF. Syphilitic osteitis in a patient with secondary syphilis and concurrent human immunodeficiency virus infection. *Clin Infect Dis* 1994;18:250-2.

Accepted for publication 12 February 1997

### Sharing prescribing of continuous aciclovir treatment: effects of a new policy and general practitioner responses

Recent guidelines on the care of patients with genital herpes<sup>1</sup> include reference to improved communication between local genitourinary medicine clinics and general practitioners. This reinforces anecdotal reports that in some areas of the UK general practitioners and genitourinary medicine clinics were satisfactorily collaborating in the management of patients requesting continuous treatment with aciclovir.

In early 1996 the national reduction in HIV funding by 7.7% and the lack of designated additional funding for new antiretroviral drugs have resulted in extreme pressure on the drug budget within the directorate of HIV/GU medicine at the Chelsea and Westminster Hospital and prompted us to examine ways of extending collaboration with general practitioners with the secondary gain of achieving an overall reduction in our drugs budget. After discussion within the unit and with purchasers we attempted to reduce our projected deficit by restricting hospital prescribed therapies to treatments for HIV infection, and acute and new presentations of STDs. With the intention of preserving patient choice concerning confidentiality, however, we asked for our patients' specific consent to write to their general practitioners to request them to share responsibilities in the prescribing of continuous aciclovir for the prevention of recurrent genital herpes.

This policy took effect from April 1996, and during the following 5 months we approached 71 patients who were receiving regular prescriptions for continuous aciclovir to prevent recurrences of culture proved genital herpes from the genitourinary medicine clinic. Eight patients refused to have their herpes diagnosis and prescription needs disclosed to their general practitioners,